GROUP 22A

MANUAL TRANSAXLE (TRANSMISSION)

CONTENTS

Main Index
Group TOC

GENERAL INFORMATION

M1221000100901

Due to the addition of vehicles with M/T, the following service procedures have been established.

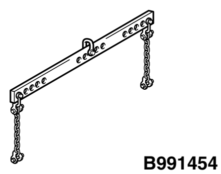
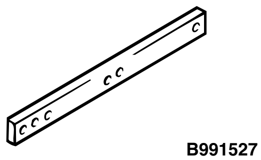
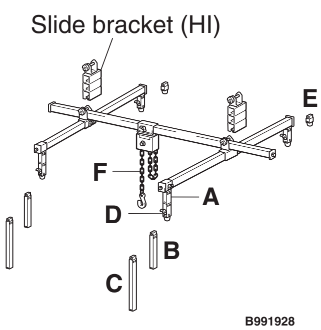
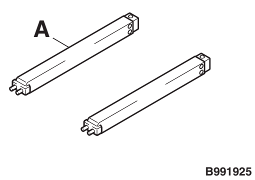
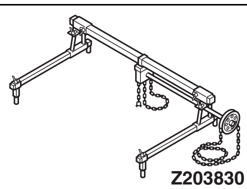
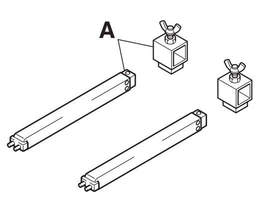
LUBRICANT

M1221000400504

Item	Specified lubricant	Quantity L
Transmission oil	Dia-Queen wide gear oil G-1 SAE 75W-90 API GL-4	1.75

SPECIAL TOOLS

M1221000600876

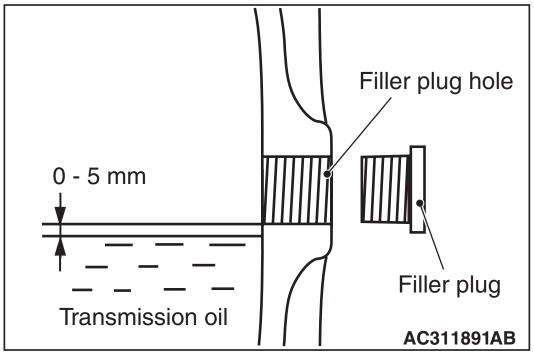
Tool	Number	Name	Use
	MB991454	Engine hanger balancer	Supporting the engine assembly while removing and installing the manual transmission assembly. 1. For the engine hanger balancer (Special tool: MB991454), use a chain only. 2. When using the engine hanger (Special tool: MB991928), install the engine hanger attachment (Special tool: MB991925). 3. When using the engine mechanical hanger (Special tool: MZ203830, MZ203831), install the engine hanger attachment (Special tool: MB991924). *NOTE: Engine hanger balancer (MB991454) is a part of the engine hanger assembly (MB991453).*
	MB991527	Engine hanger	
	MB991928 A: MB991929 B: MB991930 C: MB991931 D: MB991932 E: MB991933 F: MB991934	Engine hanger A: Joint (50) ×2 B: Joint (90) ×2 C: Joint (140) ×2 D: Foot (standard) ×4 E: Foot (short) ×2 F: Chain and hook assembly	
	MB992005 (2 sets) A: MB991925 (1 set)	Engine hanger attachment set A: Engine hanger attachment	
	Recommended tool is available from BANZAI LTD. (MZ203830) or from ANZEN MOTOR CAR CO., LTD. (MZ203831).	Engine mechanical hanger	
	MB992004 (2 sets) A: MB991924 (1 set)	Engine hanger attachment set A: Engine hanger attachment	

Main Index
Group TOC

ON-VEHICLE SERVICE

TRANSMISSION OIL LEVEL CHECK

M1221000900617

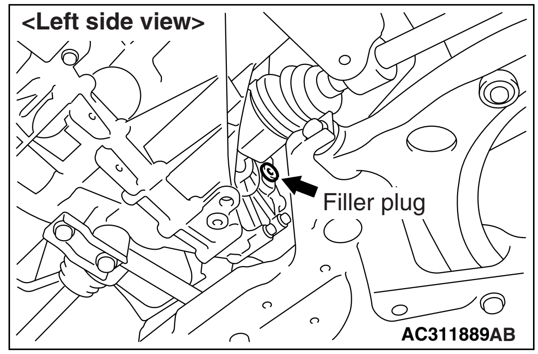


1. Remove the filler plug.
2. Check that the oil level is with in 0 – 5 mm from the lower edge of the filler plug hole.
3. Check that the oil is not noticeably dirty.
4. Tighten the filler plug to the specified torque.

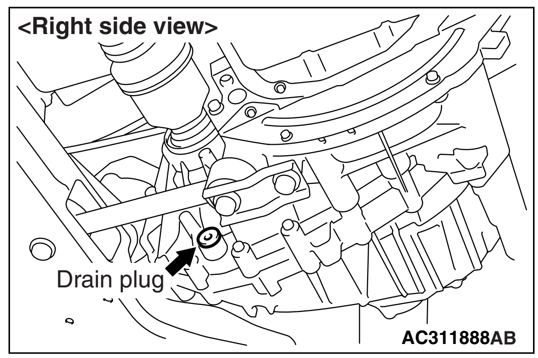
   Tightening torque: 43 ± 3 N·m

TRANSMISSION OIL REPLACEMENT

M1221001000639



1. Remove the filler plug.



2. Remove the drain plug and drain the oil.
3. Tighten the drain plug to the specified torque.

   Tightening torque: 43 ± 3 N·m
4. Fill with specified transmission oil until the level comes to the lower portion of filler plug hole.

   Brand name: Dia-Queen wide gear oil G-1 SAE 75W-90 API GL-4

   Quantity: 1.75 L
5. Tighten the filler plug to the specified torque.

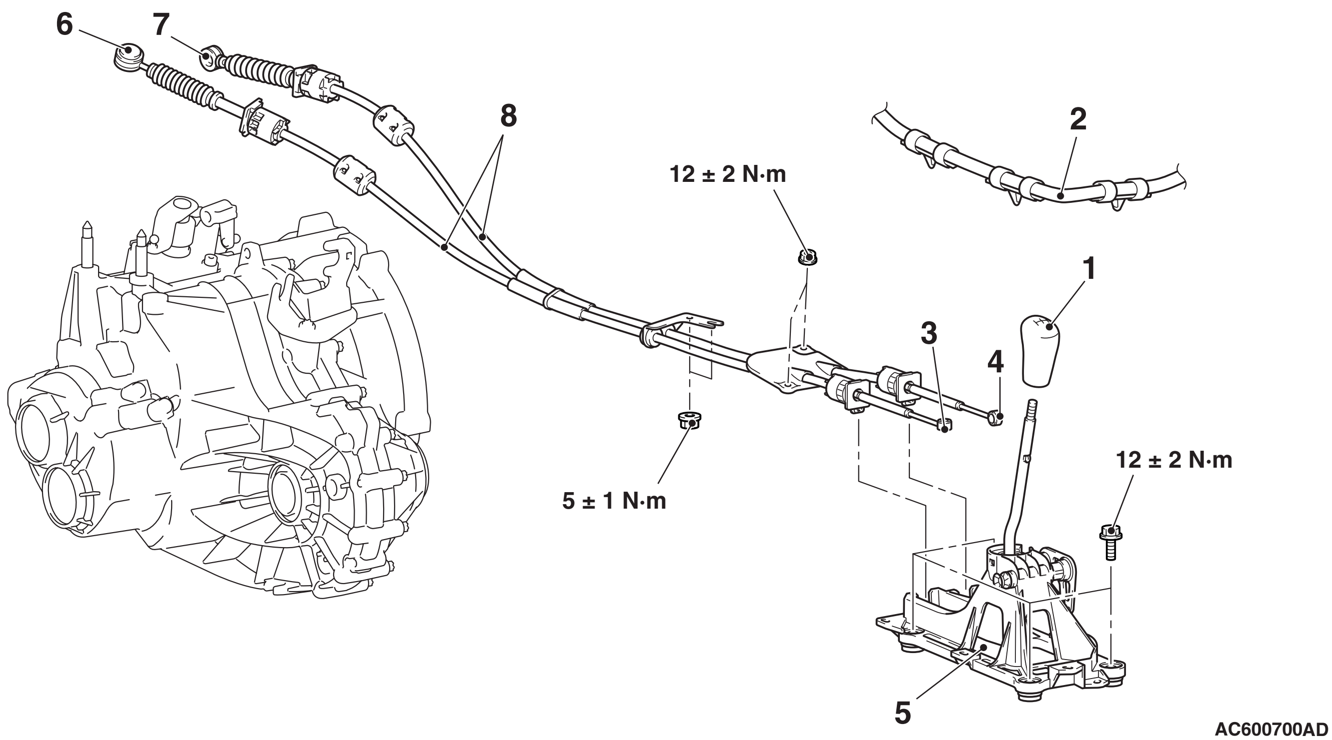
   Tightening torque: 43 ± 3 N·m

Main Index
Group TOC

TRANSMISSION CONTROL

REMOVAL AND INSTALLATION

M1221003800909



Gearshift lever assembly removal steps

1. Gearshift lever knob
- Centre console (Refer to GROUP 52A – Instrument Panel P.52A-3).
- Front scuff plate, cowl side trim (Refer to GROUP 52A – Interior trim P.52A-11).
- Floor console assembly (Refer to GROUP 52A – Floor Console Assembly P.52A-10).
- Front seat assembly (Refer to GROUP 52A – Front Seat Assembly P.52A-20 <Except for RECARO seat>, P.52A-22 <RECARO seat>).
- Floor console front bracket (Refer to GROUP 52A – Floor Console Assembly P.52A-10).

2. Harness

<<**A**>> 3. Gearshift cable connection (Gearshift lever side)

<<**A**>> 4. Select cable connection (Gearshift lever side)

5. Lever assembly

Gearshift cable and select cable assembly removal steps

1. Gearshift lever knob
- Centre console (Refer to GROUP 52A – Instrument Panel P.52A-3).
- Front scuff plate, cowl side trim (Refer to GROUP 52A – Interior trim P.52A-11).
- Floor console assembly (Refer to GROUP 52A – Floor Console Assembly P.52A-10).
- Front seat assembly (Refer to GROUP 52A – Front Seat Assembly P.52A-20 <Except for RECARO seat>, P.52A-22 <RECARO seat>).
- Floor console front bracket (Refer to GROUP 52A – Floor Console Assembly P.52A-10).

2. Harness

<<**A**>> 3. Gearshift cable connection (Gearshift lever side)

<<**A**>> 4. Select cable connection (Gearshift lever side)

5. Gearshift lever assembly
- Air cleaner assembly (Refer to GROUP 15 – Air cleaner P.15-5 <4A9>, P.15-6 <4G1>).
- Battery and battery tray

<<**B**>> 6. Gearshift cable connection (Transmission side)

<<**B**>> 7. Select cable connection (Transmission side)

Main Index
Group TOC

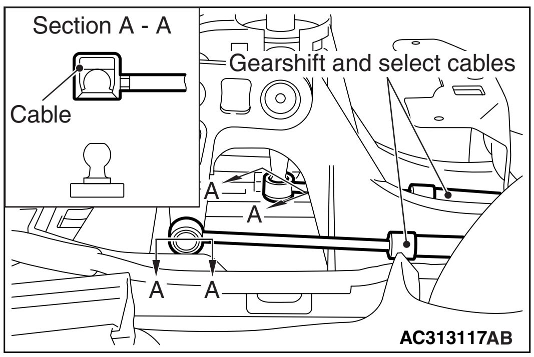
Gearshift cable and select cable assembly removal steps

- Exhaust centre pipe (Refer to GROUP 15 – Exhaust Pipe and Main Muffler P.15-19 <4A9>, P.15-21 <4G1>).
- Heat protector

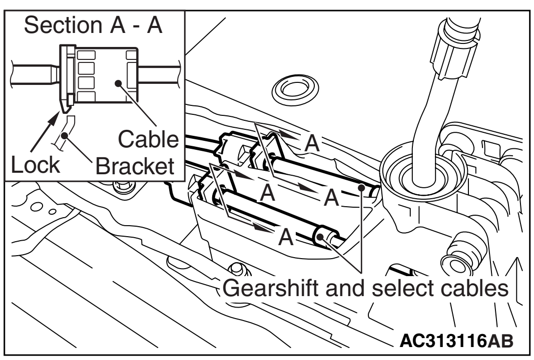
8. Gearshift cable and select cable assembly

REMOVAL SERVICE POINTS

<<A>> GEARSHIFT CABLE/SELECT CABLE (GEARSHIFT LEVER SIDE) DISCONNECTION



1. Disconnect the gearshift lever assembly from the ends of the gearshift and select cables.

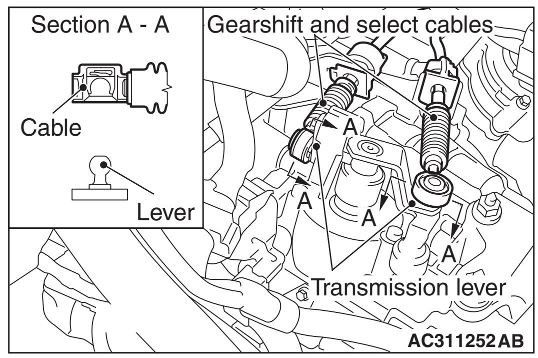


⚠ CAUTION

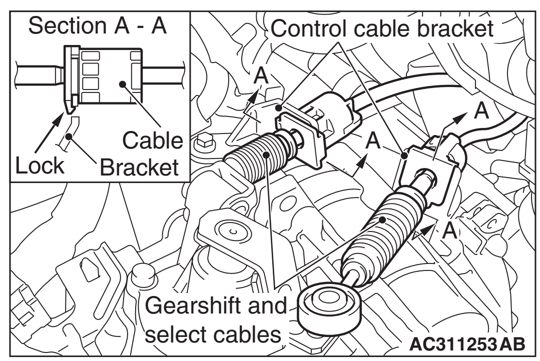
Be careful not to damage the connection of the gearshift and select cables when disconnecting them. Do not reuse gearshift and select cables, if they are damaged.

2. Release the gearshift and select cables from the gearshift lever assembly-side cable brackets by compressing their locks with a flat-tipped screwdriver.

<<B>> GEARSHIFT CABLE/SELECT CABLE (TRANSMISSION SIDE) DISCONNECTION



1. Disconnect the transmission assembly-transmission lever from the ends of the gearshift and select cables.



⚠ CAUTION

Be careful not to damage the connection of the gearshift and select cables when disconnecting them. Do not reuse gearshift and select cables, if they are damaged.

2. Release the gearshift and select cables from the transmission-side cable brackets by compressing their locks with a flat-tipped screwdriver.

Main Index

Group TOC

TRANSMISSION ASSEMBLY

REMOVAL AND INSTALLATION

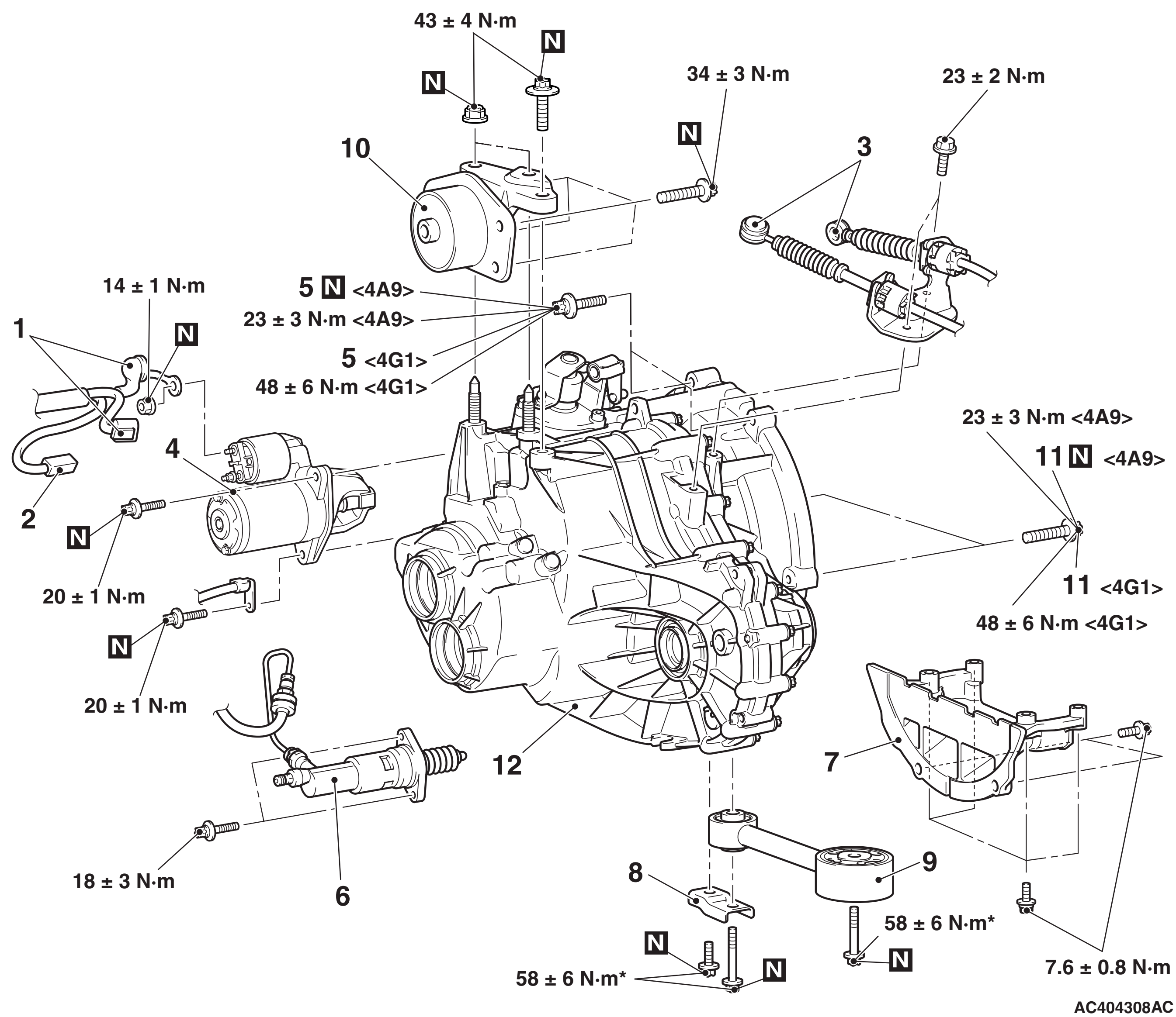
M1221002700783

⚠ CAUTION

The part indicated * mark should be temporarily tightened and then should be fully tightened with the engine weight applied on the vehicle body.

Pre-removal Operation	Post-installation Operation
• Engine Room Centre Under Cover Removal • Engine Room Side Cover Removal • Transmission Oil Draining (Refer to P.22A-4). • Air Cleaner Assembly Removal (Refer to GROUP 15, Air Cleaner P.15-5 <4A9>, P.15-6 <4G1>). • Battery and Battery Tray Removal • Wiper Arm and Blade Assembly and Front Deck Garnish Removal (Refer to GROUP 51, Windshield Wiper P.51-29). • Cowl Top Panel Removal (Refer to GROUP 42, Loose Panel P.42-81). • Strut Tower Bar Removal (Refer to GROUP 42, Strut Tower Bar P.42-11). • Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-19 <4A9>, P.15-21 <4G1>). • Drive Shaft Removal (Refer to GROUP 26, P.26-16). • Front Bumper Assembly Removal (Refer to GROUP 51, Front Bumper Assembly and Radiator Grille P.51-2). • Inter Cooler Removal (Refer to GROUP 15, Inter Cooler P.15-8).	• Drive Shaft Installation (Refer to P.26-16). • Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-19 <4A9>, P.15-21 <4G1>). • Strut Tower Bar Installation (Refer to GROUP 42, Strut Tower Bar P.42-11). • Cowl Top Panel Installation (Refer to GROUP 42, Loose Panel P.42-81). • Wiper Arm and Blade Assembly and Front Deck Garnish Installation (Refer to GROUP 51, Windshield Wiper P.51-29). • Battery and Battery Tray Installation • Air Cleaner Assembly Installation (Refer to GROUP 15, Air Cleaner P.15-5 <4A9>, P.15-6 <4G1>). • Engine Room Side Cover Installation • Engine Room Centre Under Cover Installation • Inter Cooler Installation (Refer to GROUP 15, Inter Cooler P.15-8). • Front Bumper Assembly Installation (Refer to GROUP 51, Front Bumper Assembly and Radiator Grille P.51-2). • Transmission Oil Filling (Refer to P.22A-4).

Main Index
Group TOC



Removal steps

1. Starter connector and terminal
2. Back-up lamp switch connector
3. Transmission control cable connection
4. Starter

<<**A**>> 5. Transmission assembly upper part mounting bolts

6. Clutch release cylinder connection
7. Transmission housing front lower cover stay
8. Engine mounting stay
9. Engine roll stopper rod assembly

Removal steps (Continued)

- Raise the engine and transmission assembly to the position where the engine weight is not applied to the transmission mounting insulator.
- Engine assembly supporting

10. Transmission mounting insulator

<<**B**>> • Engine assembly supporting

11. Transmission assembly lower part mounting bolts
12. Transmission assembly

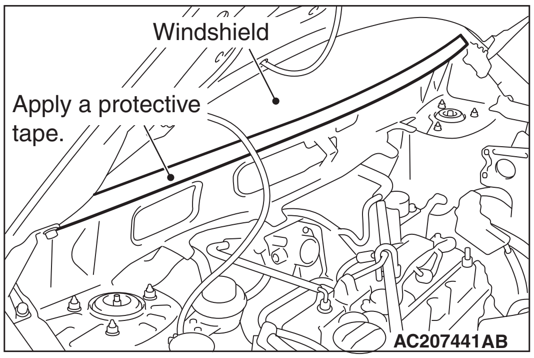
Main Index
Group TOC

REMOVAL SERVICE POINTS

<<A>> TRANSMISSION ASSEMBLY UPPER PART COUPLING BOLTS REMOVAL

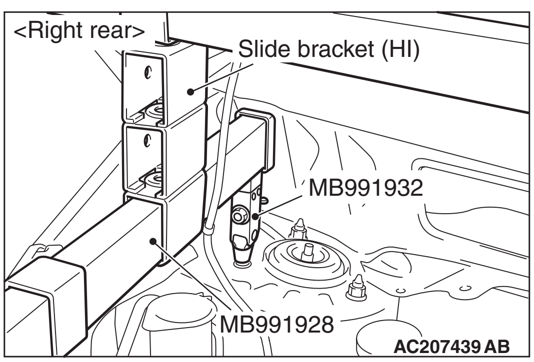
Only loosen the bolts from the engine and transmission assembly (do not remove).

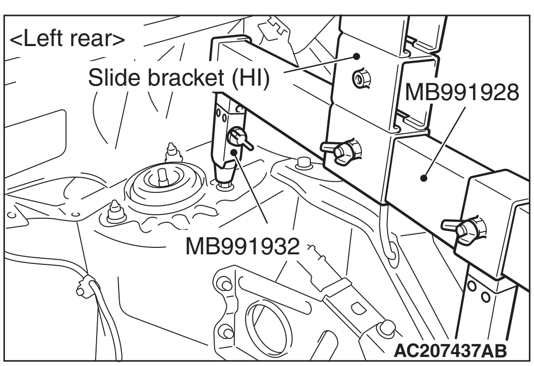
<<B>> ENGINE ASSEMBLY SUPPORTING



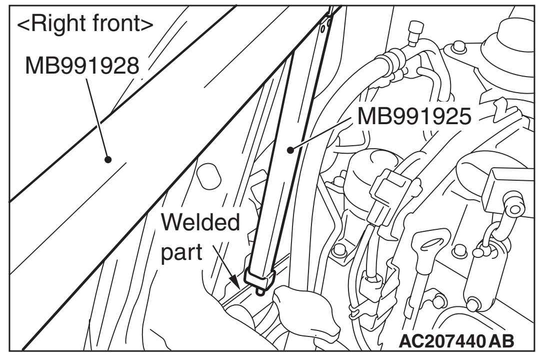
1. Wrap a protective tape to avoid damage to the windshield.

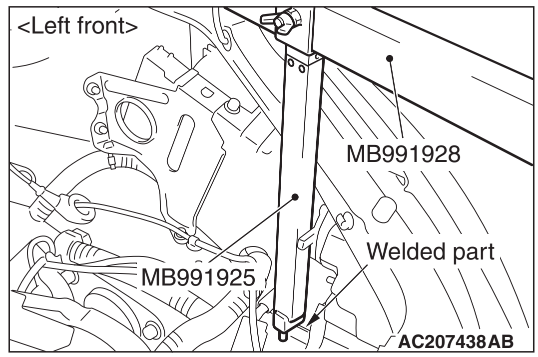
2. <Engine hanger (special tool MB991928) is used>
   (1) Assemble the engine hanger (special tool MB991928). Set following parts to the base hanger.
- Slide bracket (HI)
- Foot (standard) (MB991932)
- Engine hanger attachment (MB991925)





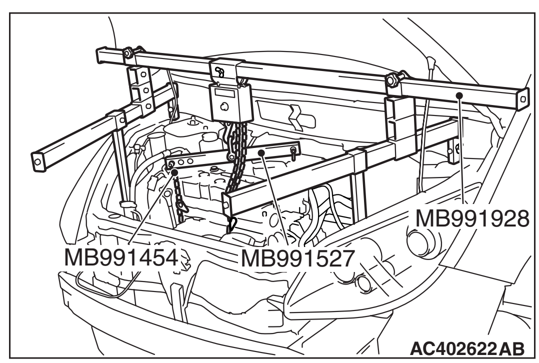
(2) Set the foot (standard) (Special tool: MB991932) to the front fender strut assembly mounting nut shown in the figure.





(3) Set the engine hanger attachment (Special tool: MB991925) to the front side member welded part shown in the figure.

NOTE: Adjust the engine hanger balance by sliding the engine hanger attachment (MB991925) and the slide bracket (HI).

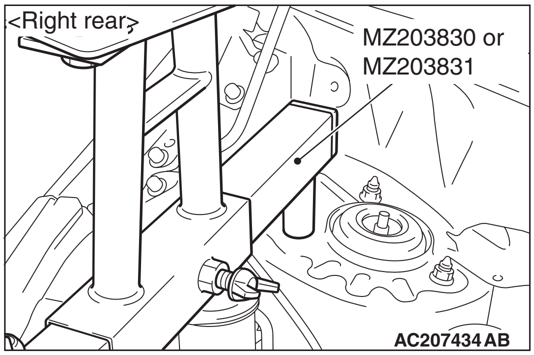


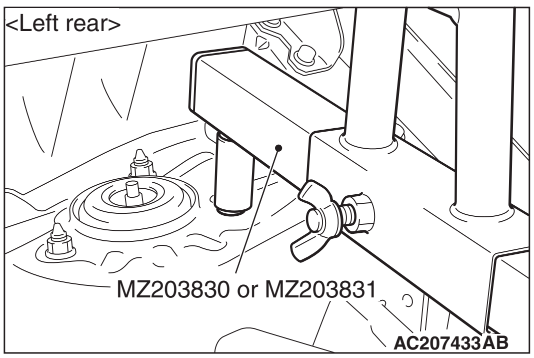
(4) Set the chains of the engine hanger (Special tool: MB991527) and the engine hanger balancer (Special tool: MB991454) to support the engine and transmission assembly. Remove the transmission assembly upper part coupling bolts that have been loosened previously.

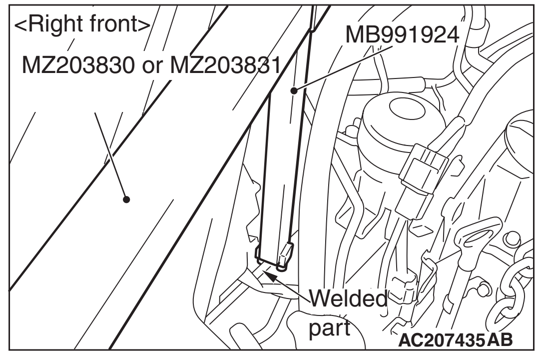
Main Index
Group TOC

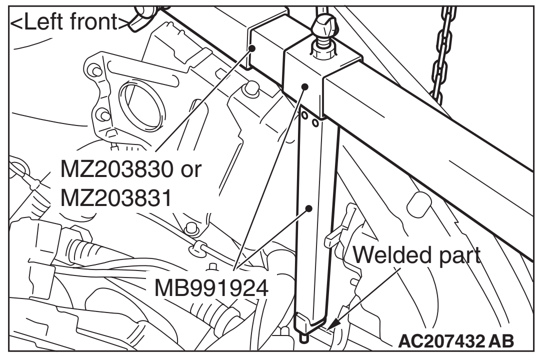
3. <Engine mechanical hanger (special tool MZ203830 or MZ203831) is used>

(1) Set the engine hanger attachment (Special tool: MB991924) to the engine mechanical hanger (Special tool: MZ203830 or MZ203831).





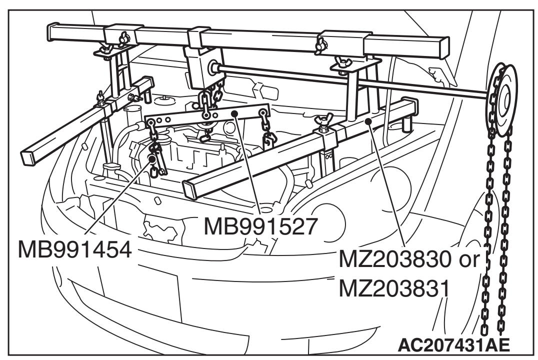




(2) Set the foot at the rear side of the engine mechanical hanger (Special tool: MZ203830 or MZ203831) to the strut assembly mounting nut of the front fender shown in the figure.

(3) Set the engine hanger attachment (Special tool: MB991924) to the front side member welded part shown in the figure.

NOTE: Adjust the engine hanger balance by sliding the engine hanger attachment (Special tool: MB991924).



(4) Set the chains of the engine hanger (Special tool: MB991527) and the engine hanger balancer (Special tool: MB991454) to support the engine and transmission assembly. Remove the transmission assembly upper part coupling bolts that have been loosened previously.